

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

MAR 08 2004

1. (Currently Amended ) A stator for an automotive alternator, said stator comprising:  
an annular shaped, ~~single piece~~ stator core formed as a lamination of a plurality of sheet-shaped magnetic members, said stator core having a plurality of teeth defining a plurality of slots extending in axial directions at one side of a yoke at an inner circumference thereof, ~~two sets of three phase stator coils fitted into said slots, and~~ said lamination having a first end surface and a second end surface fixed directly together to form said annular shape[[,]]; and  
two sets of three-phase stator coils fitted into said slots, wherein 2 slots are provided for each phase of said stator coils and each magnetic pole and the total number of the slots is 72 or more.

2. (Previously Presented) A stator for an automotive alternator according to Claim 1, wherein an interval in the circumferential direction between a center of air gaps of adjacently formed slot opening portions is not the same.

3. (Currently Amended) A stator for an automotive alternator according to Claim 2 characterized in that, wherein said interval of ~~slot opening portions~~ is a repeated electrical angle of  $\alpha$  degrees and  $(60-\alpha)$  degrees, and said  $\alpha$  degrees is in a range of from 16 to 29 degrees.

AMENDMENT UNDER 37 C.F.R. § 1.111  
Application No. 09/625,993

4. (Currently Amended) A stator for an automotive alternator according to Claim 2 characterized in that, wherein said interval ~~of slot opening portions~~ is a repeated electrical angle of  $\alpha$  degrees and  $(60-\alpha)$  degrees, and said  $\alpha$  degrees is in a range of from 22 to 24 degrees.

5. (Currently Amended) A stator for an automotive alternator according to Claim 2 characterized in that, wherein said interval ~~of slot opening portions~~ is a repeated electrical angle of 24 degrees and 36 degrees.

Claims 6-8 (Canceled)

9. (Currently Amended) A stator for an automotive alternator, said stator comprising:  
an annular shaped stator core formed as a lamination of a plurality of sheet-shaped magnetic members, said stator core having a plurality of teeth defining a plurality of slots extending in axial directions at one side of a yoke at an inner circumference thereof, ~~two sets of three-phase stator coils fitted into said slots~~, and end surfaces fixed together to complete said annular shape[[,]]; and

two sets of three-phase stator coils fitted into said slots,

wherein 2 slots are provided for each phase of said stator coils and each magnetic pole and the total number of the slots is 72 or more, and

AMENDMENT UNDER 37 C.F.R. § 1.111  
Application No. 09/625,993

wherein widths of said teeth which define said slots alternate in size in a circumferential direction so that an interval in the circumferential direction between a center of air gaps of adjacently formed slot opening portions is an alternating electrical angle of  $\alpha$  degrees and (60 -  $\alpha$ ) degrees, and said  $\alpha$  degrees is in a range from 16-29 degrees.

10. (Currently Amended) ~~The A~~ stator for an automotive alternator ~~according to Claim 9~~, said stator comprising:

an annular shaped stator core formed as a lamination of a plurality of sheet-shaped magnetic members, said stator core having a plurality of teeth defining a plurality of slots extending in axial directions at one side of a yoke at an inner circumference thereof, and end surfaces fixed together to complete said annular shape; and

two sets of three-phase stator coils fitted into said slots,

wherein 2 slots are provided for each phase of said stator coils and each magnetic pole and the total number of the slots is 72 or more,

wherein widths of said teeth which define said slots alternate in size in a circumferential direction, and

wherein contact surfaces of said stator core, when said stator core is connected as an annular shape, are formed by dividing a wide tooth among said teeth of alternating widths in a circumferential direction with a substantially orthogonal surface.

Claims 11 and 12 (Canceled).

AMENDMENT UNDER 37 C.F.R. § 1.111  
Application No. 09/625,993

13. (Currently Amended) The stator for an automotive alternator according to Claim ~~11~~  
9, wherein ~~said interval of slot opening portions is an alternating electrical angle of  $\alpha$  degrees and~~  
~~(60 -  $\alpha$ ) degrees, and said  $\alpha$  degrees is in a range of from 22 to 24 degrees.~~

14. (Currently Amended) The stator for an automotive alternator according to Claim ~~11~~  
9, wherein said interval ~~of slot opening portions~~ is an alternating electrical angle of 24 degrees  
and 36 degrees.

15. (Currently Amended) A stator for an automotive alternator, said stator comprising:  
a stator core in which a plurality of slots extending in axial directions are formed at an  
inner circumference thereof, a plurality of teeth defining and partitioning said slots~~[[,]]~~; and  
two sets of three-phase stator coils which are fitted into said slots,  
wherein 2 slots are provided for each phase of said stator coils and each magnetic pole  
and the total number of the slots is 72 or more, and  
wherein a first set of said teeth each including first and second projections extending  
extend in a circumferential direction are formed on said teeth which partition said slots, said first  
and second projections each having a length, and different lengths so that an interval in a  
circumferential direction between a center of air gaps of adjacently formed slot opening portions  
between said teeth is alternated by alternating said lengths of said projections.

AMENDMENT UNDER 37 C.F.R. § 1.111  
Application No. 09/625,993

16. (Currently Amended) The stator for an automotive alternator according to Claim 15, wherein said interval of ~~slot opening portions~~ is an alternating electrical angle of  $\alpha$  degrees and  $(60 - \alpha)$  degrees, and said  $\alpha$  degrees is in a range from 16-29 degrees.

17. (Currently Amended) The stator for an automotive alternator according to Claim 15, wherein said interval of ~~slot opening portions~~ is an alternating electrical angle of  $\alpha$  degrees and  $(60 - \alpha)$  degrees, and said  $\alpha$  degrees is in a range of from 22 to 24 degrees.

18. (Currently Amended) The stator for an automotive alternator according to Claim 15, wherein said interval of ~~slot opening portions~~ is an alternating electrical angle of 24 degrees and 36 degrees.

Claims 19-27 (Canceled).

28. (New) A stator for an automotive alternator, said stator comprising:

an annular shaped stator core having a plurality of teeth defining a plurality of slots

extending in axial directions at one side of a yoke at an inner circumference thereof; and

two sets of three-phase stator coils fitted into said slots,

AMENDMENT UNDER 37 C.F.R. § 1.111  
Application No. 09/625,993

wherein an interval in the circumferential direction between a center of air gaps of adjacently formed slot opening portions is an alternating electrical angle of  $\alpha$  degrees and  $(60 - \alpha)$  degrees, and said  $\alpha$  degrees is in a range from 16-29 degrees.

29. (New) The stator for an automotive alternator according to claim 28, wherein said  $\alpha$  degrees is in a range of from 22 to 24 degrees.

30. (New) The stator for an automotive alternator according to claim 28, wherein said interval is an alternating electrical angle of 24 degrees and 36 degrees.

31. (New) The stator for an automotive alternator according to claim 28, wherein 2 slots are provided for each phase of said stator coils and each magnetic pole and the total number of the slots is 72 or more.

32. (New) The stator for an automotive alternator according to claim 28, wherein widths of said teeth which define said slots alternate in size in a circumferential direction to define said alternating electrical angle.